

Some Theorems on the Boundedness and Stability
of Solutions of Systems of Differential Equations of the Form

SOV/155-58-4-9/34

$$\ddot{x}_1 + a_1(t) \sum_{k=1}^n b_{1,k}(t) \dot{x}_k + a_1(t) \frac{\partial F}{\partial x_1} = 0$$

$$\sum_{k=1}^n b_{1,k}(t) \xi_1 \xi_k \geq 0 \quad \text{for all } t \geq 0. \text{ Then all the}$$

solutions of the equation of the title are bounded for $t \geq 0$.
Theorem : All the solutions of the equation of the title are
continuable and bounded, if

$$\int_0^{\infty} |a_1'(t)| dt < \infty, \quad 0 < \alpha \leq a_1(t) \leq \beta < \infty, \quad t \in [0, \infty)$$

and if F and $\sum b_{1,k} \xi_1 \xi_k$ satisfy the suppositions of
the first theorem.

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Some Theorems on the Boundedness and Stability
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The author thanks V.V. Nemytskiy for remarks.

There are 3 references, 2 of which are Soviet, and 1 American.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova
(Moscow State University imeni M.V. Lomonosov)

SUBMITTED: June 4, 1958

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KLOKOV, Yu.A.

Some theorems on the boundedness of solutions of ordinary differential equations. Usp.mat.nauk 13 no.2:189-194 Mr-Apr '58. (MIRA 11:4)
(Differential equations)

ILOKOV, Yu. A., Cand Phys-Math Sci — (diss) "The ^{terminal boundary} ~~Minimal~~ ^{second-order} ~~problem~~ problem for ~~the~~ ordinary differential equation of the ~~second order~~ ~~of the second order~~ Moscow, 1959. 3 pp (Mos State U in K. V. Lomonosov).
100 copies (KL, 39-59, 101)

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69484

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S/055/59/000/05/017/020

AUTHOR: Klovov, Yu. A.

TITLE: On the Limit - Boundary Value Problem for a System of Ordinary Differential Equations of Second Order

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1959, No. 5, pp. 197-204

TEXT: Let the problem

(1) $\ddot{x} = f(x, \dot{x})$, (1') $x(0) = a$, $x(\infty) = b$, be considered, where $f(x, y)$ is a function continuous in all $2n$ variables which satisfies the Lipschitz condition in every bounded domain.

Theorem 2: If for the system (1) the condition

$$(B) \quad |f(x, y)| \leq o(r)(1 + y^2)$$

is satisfied, where $o(r)$ is a continuous nonnegative function, then for the existence of a solution of (1) - (1') it is necessary that $f(b, 0) = 0$.

Let the system

$$(10) \quad \ddot{x} = Ax + B\dot{x} + f(x, \dot{x})$$

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On the Limit - Boundary Value Problem for a System of Ordinary
Differential Equations of Second Order

and

$$(10') \quad x(0) = a, \quad x(\alpha) = 0$$

be given, where $f(0,0) = 0$, $f(x,y)$ is continuously differentiable and
 $|f'_x(x,y)| + |f'_y(x,y)| \rightarrow 0$ for $|x| + |y| \rightarrow 0$. Let the equation

$$(6) \quad \text{Det} |A + B\lambda - I \lambda^2| = 0$$

have n roots with positive and negative real parts each. Let

$$(7) \quad x_i(t) = \sum_{k=1}^n c_k x_{i,k}(t)$$

be the general solution of

$$(5) \quad \ddot{x} = Ax + B\dot{x}$$

and let

$$(9) \quad \text{Det} |x_{1,k}(0)| \neq 0.$$

Then for every sufficiently small vector $x(0) = a$ there exists one
and only one solution of (10), (10'), where the solution $x(t)$ satisfies
the system $\dot{x} = \alpha x + \varphi(x)$, with $\varphi(x)$ continuously differentiable and

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On the Limit - Boundary Value Problem for a System of Ordinary
Differential Equations of Second Order

$|\varphi'(x)| \rightarrow 0$ for $x \rightarrow 0$. If $f(x,y)$ is analytic in a neighborhood of
zero, then so is $q(x)$.
S. N. Bernshteyn, A. M. Lyapunov, and J. G. Petrovski; are mentioned
by the author.

There are 8 references: 5 Soviet, 2 American and 1 German.

SUBMITTED: December 29, 1958

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16(1)

AUTHOR:

Klokov, Yu.A.

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SOV/140-59-6-10/29

TITLE:

A Limit Boundary Value Problem for the Equation $\Psi + if(x, t) + \varphi(x) = 0$

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 6, pp 72-80 (USSR)

ABSTRACT:

The author considers the problem

$$(1) \quad \Psi + if(x, t) + \varphi(x) = 0$$

$$(1') \quad x(0) = x_0, \quad x(\infty) = \alpha,$$

where $f(x, y)$ and $\varphi(x)$ and their first derivatives are assumed to be continuous.

Theorem 1: Let $x(t)$, $0 \leq t < +\infty$ be a solution of (1). If $x(t)$ for $t \rightarrow +\infty$ tends to a finite limit value, then $t(t) \rightarrow 0$ for $t \rightarrow +\infty$.

Theorem 2: $\varphi(\alpha) = 0$ is necessary for the existence of a solution of (1) (1').

Theorem 3: Let $\varphi(0) = 0$, $x\varphi(x) < 0$ for $x \neq 0$ and $|f(x, y)| \leq a(x)|y| + b(x)$. Then for every x_0 there exists only one value t_0 for which

$x(t) \rightarrow 0$ for $t \rightarrow +\infty$.

Theorem 4: If

$$k = \frac{f(0,0)}{2} + \sqrt{\frac{f^2(0,0)}{4} - \varphi'(0)} > 0,$$

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A Limit Boundary Value Problem for the Equation
 $x + \xi f(x, \xi) + \varphi(x) = 0$

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then $x(t) = x_0 e^{-kt} [1 + \xi(t)]$

Theorem 5: If $f(0,0) < 0$ and $\varphi'(x) \rightarrow 0$ for $x \rightarrow 0$, then

$$\xi = - \frac{\varphi(x)}{f(0,0)} [1 + \xi(t)] .$$

Theorem 6: If for a $p > 0$

$$\lim_{x \rightarrow 0} \left[\frac{f(x,0)}{2(p+1)x^p} + \sqrt{\frac{f^2(x,0)}{4(p+1)^2 x^{2p}} - \frac{\varphi(x)}{(p+1)x^{2p+1}}} \right] = k > 0$$

and k is finite, then $-\frac{\xi}{x^{p+1}} = k + \xi_1(t)$ and $x(t) = \left(\frac{1}{pkt}\right)^{1/2} [1 + \xi(t)]$,

where $\xi, \xi_1 \rightarrow 0$ for $t \rightarrow +\infty$.

Theorem 7: If $\lim_{x \rightarrow 0} \frac{f(x,0)}{x^p} < 0$ for a $p > 0$ and $\lim_{x \rightarrow 0} \frac{\varphi'(x)}{x^{2p}} = 0$, then

$$\xi = - \frac{\varphi(x)}{f(x,0)} [1 + \xi(t)] .$$

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8/020/51/119/004/003/025
011/0113

AUTHOR: Klokov, Yu. A.

TITLE: A boundary value problem with conditions at $t \rightarrow \infty$

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 4, '96', 799-801

TEXT: Consider the boundary value problems

$$\ddot{x} + f(t, x, \dot{x}) \dot{x} = 0; \quad (1)$$

$$x(-\infty) = a, \quad x(+\infty) = b. \quad (1')$$

and

$$\ddot{x} + \varphi(x, \dot{x}, \ddot{x}) \ddot{x} = 0 \quad (2)$$

$$\dot{x}(-\infty) = a, \quad x(0) = b, \quad \dot{x}(+\infty) = c \quad (2')$$

where a, b, c are given numbers, f is defined in the entire space (t, x, y) , continuous in t , satisfies the Lipschitz condition in x, y in every bounded domain, and where $\varphi(x, y, z)$ satisfies the Lipschitz condition in every bounded domain of the space (x, y, z) .

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A boundary value problem with . . .

where the dash denotes the differentiation with respect to x . Thereby the problem (2), (2') is reduced to (1), (1'). If (3), (3') has a unique solution, then the solution of (2), (2') is unique too.

If $a < 0$, $b > 0$, then the uniqueness of the solution of (2), (2') is in general not guaranteed.

There are 2 Soviet-bloc references and 1 non-Soviet-bloc reference. The reference to English-language publication reads as follows:
L. G. Napolitano, Quart. Appl. Math., 16, No. 4, 397 (1959).

PRESENTED: March 18, 1961, by J. G. Petrovskiy, Academician

SUBMITTED: March 11, 1961

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16.3400

S/199/63/004/001/003/005
B112/B102

AUTHOR: Klovov, Yu. A.

TITLE: The boundary-value problem for the second-order differential equation

PERIODICAL: Sibirskiy matematicheskiy zhurnal, v. 4, no. 1, 1963, 86 - 96

TEXT: The solution of the general boundary-value problem $Y = f(t, x, \dot{x}), (1)$ $x(0) = a, x(1) = b$ (11') is approximated by a sequence of functions $x_{n+1}(t)$ which satisfy the Eqs. $Y_{n+1} = (1-\sigma)Y_n + \sigma f(t, x_n, \dot{x}_n) + f'_y(t, x_n, \dot{x}_n)(\dot{x}_{n+1} - \dot{x}_n)$ $x_{n+1}(0) = a, x_{n+1}(1) = b$. The parameter σ must be assumed sufficiently small. There is 1 figure. ✓

SUBMITTED: May 5, 1961

Card 1/1

KLOKOV, Yu.A.

Boundary value problem with conditions at infinity for an
ordinary second-order differential equation. Usp.mat.nauk
17 no.6:145-149 M-D '62. (MIRA 16:1)
(Boundary value problems) (Differential equations)

KLOKOV, Yu.A. (Riga)

Replacing differential equations by difference equations in solving a
Cauchy problem. Izv.vys. ucheb. zav.; mat. no.2:53-59 '63.

(MIRA 16:3)

(Differential equations)

(Difference equations)

KLOKOV, Yu. A.

A boundary value problem for a second-order differential equation.
Sib.mat.sbr. 4 no.1:86-96 Ja-P '63. (MIRA 1612)
(Boundary value problems) (Differential equations)

KLOKOV, Yu.A.

Boundary value problems with conditions at infinity for ordinary
differential equations. Sib.mat.zhur.4 no.6:1318-1327 N-D '63.
(MIRA 17:9)

KLOKOV, Yu.A. (1964)

Method for solving boundary value problems with conditions at
infinity. Mat. sbor. 67 no.2:161-166 Jo '65.

(MIRA 18:8)

L 22108-66 EWT(d) IJP(e)

ACC NR: AP6012667

SOURCE CODE: UR/0039/65/067/002/0161/0166

AUTHOR: Klokov, Yu. A. (Riga)

ORG: none

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B

TITLE: Method of solving boundary value problems with a condition imposed at infinity

SOURCE: Matematicheskii sbornik, v. 67, no. 2, 1965, 161-166

TOPIC TAGS: boundary value problem, mathematics

ABSTRACT: An effective method is sought for solving a boundary value problem of the form

$$\begin{aligned} \ddot{x} &= f(t, x, \dot{x}) \\ x(0) &= a, \quad |x(t)| < \text{const} \quad (0 \leq t < \infty). \end{aligned}$$

A restriction at infinity makes it difficult to use numerical methods. Under certain broad assumptions, when $n \rightarrow \infty$, the sequence of functions $x_n(t)$ ($n=1,2,\dots$) tends toward solutions of the problem uniformly in each finite interval. Convergence can be strengthened in many cases. Detailed proofs are given. Orig. art. has: 9 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 16May63 / ORIG REF: 004

Card 1/1 ALG

UDC: 517.924

E 20862-66 EWA(h) TO
ACC NR: AP6(11073

SOURCE CODE: CZ/0017/65/054/004/0159/0161

AUTHOR: Kloss, Albert

ORG: CKD, Prague

TITLE: Problems of the reliability of rectifiers

SOURCE: Elektrotechnicky obsor, v. 54, no. 4, 1965, 159-161

TOPIC TAGS: electronic rectifier, circuit reliability, electron tube

ABSTRACT: The paper presents a theoretical analysis of the reliability of rectifiers with regard to the average loading of individual tubes. The interrelation between the reliability of the rectifier and the total number of tubes is investigated and it is concluded that, without specific, experimentally obtained knowledge of the dependence of the failure rate of valves on their average load, providing a larger number of less loaded tubes is not justified economically and may even worsen the reliability of a rectifier. This paper was presented by Engineer J. Ibl. Orig. art. has: 2 figures. [JPR3]

SUB CODE: 09 / SUBM DATE: 01Oct63

Card 1/1

UDC: 621.314.63.004.54

ACC NR: AR6C16600

SOURCE CODE: UR/0044/65/000/012/B039/B039

AUTHOR: Klokov, Yu. A.

TITLE: Boundary value problems with a condition at infinity for equations of mathematical physics ✓

SOURCE: Ref. zh. Matematika, Abs. 12B200

REF SOURCE: Krayevyye zadachi s usloviyem na beskonechnosti dlya uravneniy matematicheskoy fiziki. Riga, Riazsk. in-t inzh. grazhd. vozd, flota, 1963, 107 str.

TOPIC TAGS: boundary value problem, nonlinear differential equation, existence, uniqueness, approximation convergence, mathematic physics

ABSTRACT: The monograph contains work by the author, the majority of which was published earlier (RZhMat, 1959, 351; 1960, 11588; 1961, 1B135, 3B164, 10B104; 1962, 3B191; 1964, 4B219, 4B220). In part I a series of results is presented concerning existence and uniqueness of the solution of the regular problem $\ddot{x} = f(1, x, \dot{x})$, $x(\alpha) = a$, $x(\beta) = b$ for any values of α and β . The author notes the role of the Bernshtein condition $|f(t, x, y)| < o(t, x)(1 + y^2)$ for existence of a solution. Part II deals with existence, uniqueness, and continuous dependence of the solution of the equation $\ddot{x} = f(t, x, \dot{x})$ under certain of the following singular boundary conditions:

$x(0) = a$, $x(\infty) = b$; $x(0) = a$, $|x| < \text{const}$, $t \in (0, \infty)$;
 $|x| \leq \text{const}$, $t \in (-\infty, \infty)$; $x(-\infty) = a$, $x(\infty) = b$.

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ACC NR: AR6016600

In part III the author considers the equation $\dot{X} = f(t, x, \dot{x}, X)$ with certain singular boundary conditions. In part IV he investigates the problem $x^{(n)} = f(t, x, \dots, x^{(n-1)})$, $x^{(k)}(0) = a_k$ ($k=0, \dots, n-2$), $|x(t)| < \text{const}$, $t \in (0, \infty)$. In all the sections he studies the autonomous cases separately. The first three sections conclude with an investigation of approximate methods for construction of a solution. In section II this method is based on convergence of the sequence $\{x_n(t)\}$, where $\dot{X}_n = f(t, x_n, \dot{x}_n)$, $x_n(0) = a$, $x_n(n) = 0$, $n = 1, 2, \dots$, to the solution of the problem with conditions $x(0) = a$, $|x| < \text{const}$, $t \in (0, \infty)$. Bibliography of 53 titles. N. Azbelev and Z. Tsalyuk
[Translation of abstract]

SUB CODE: 12

Card 2/2 *diu*

S/103/63/024/003/012/015
D405/D301

AUTHORS:

Klokov, Yu.L. and Tsirlin, A.M. (Moscow)

TITLE:

Centering of random-process realizations by means of digital computers

PERIODICAL:

Avtomatika i telemekhanika, v. 24, no. 3, 1963, 403-407

TEXT:

In solving some problems of statistical dynamics the necessity arises of centering the realizations of the random process obtained from experiment. Under certain conditions (which are fulfilled in practice) the centering operation can be reduced to filtration. For this purpose discrete filters are used which do not produce phase distortions; this requirement leads to a symmetrical impulse characteristic of the filter. The appropriate filters are designed with the help of digital computers. It is possible to approximate an ideal filter by selecting the transient impulse function of the filter in the form

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$$h(k) = \begin{cases} \frac{\sin k \omega_0}{k \omega_0} \cos \frac{\pi k}{2N+1} & \text{for } k \leq N, \\ 0 & \text{for } k > N, \end{cases} \quad (5)$$

Centering of random-process ...

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D405/D301

where $\sin k \omega_0 / 1: \omega_0$ is a cosine series expansion of the frequency characteristic of an ideal filter. In calculations which do not require an accurate knowledge of the frequency characteristic near the origin, it is convenient to use a filter with characteristic

$$h(k) = \begin{cases} \cos \frac{\pi k}{2N+1} & \text{for } k \leq N, \\ 0 & \text{for } k > N. \end{cases} \quad (6)$$

For the synthesis of the filters (5) and (6) by digital computers it is expedient to approximate these functions by successive averaging (by a process adopted from the references). The above method of filtration involves some distortion of the statistical characteristics; this can be easily corrected by extrapolation of the frequency characteristic in the interval $[-\omega_0, \omega_0]$. There are 7 figures.

SUBMITTED: July 10, 1962

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BALAKIREV, V.S.; DUDNIKOV, Ye.O.; KLOKOV, Yu.L.; MASLENNIKOV, I.M.;
TSIRLIN, A.M.

Solving some problems of automatic control by means of the
analogue digital computer. Trudy MIKHM 25:3-17 '63.

(MIRA 17:6)

KLOKOV, Yu.L.; MASLENNIKOV, I.M.

Methodology of the experimental determination of the statistical characteristics of random processes in industrial control systems. Trudy MIKHM 25:102-112 '63. (MIRA 17:6)

KICKOV, Yu.I. (Moskva)

Evaluation of sampling interval in calculating spectral densities
of random processes. Avtom. i telemek. 25 no.3:356-367 Mr '64.
(MIRA 1716)

KLOKOT, Yu.L. (Moskva); ZHURAVLEV, I.V. (Moskva)

Method for evaluating the conditional damping time of the correlation functions of a certain class of random processes. Avtom. i telex. 26 no.10:1695-1702 0 '65. (MIRA 18:10)

L 0900-66 HWT(d)/T IJP(e)

ACC NR: AP8028982

SOURCE CODE: UR/0103/66/026/010/1695/1702

AUTHOR: ^{44,55} Klov, Yu. L. (Moscow); ^{44,55} Zhuravlev, L. V. (Moscow)

ORG: None

TITLE: A method for evaluating the conditional attenuation time of correlation functions of a certain class of random processes

SOURCE: Avtomatika i telemekhanika, v. 26, no. 10, 1965, 1695-1702

TOPIC TAGS: random process, ^{16,44,55} correlation function, ^{16,44,55} stochastic process

ABSTRACT: The authors develop a simple and convenient method for evaluating the conditional attenuation time τ_{at} of correlation functions of a certain class of stochastic processes. The method is based on the formula for the average number of zeros per unit of time in a normal stationary differentiable random process with a zero mean value, where the average number of zeros is expressed in terms of the second derivative of the normalized correlation function at $\tau = 0$.

$$n_0 = \frac{1}{\pi} \sqrt{-\rho''(0)},$$

where $\rho(\tau)$ is the normalized correlation function. The set of functions $\tau_{at} = f_k(n_0)$ corresponding to a set of $\rho(\tau)$ defined in the paper is considered. The problem is solved by partial

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ACC NR: AP6025952

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construction of this set, involving the following operations: 1) finding the second derivative at $\tau = 0$ for each of the defined correlation functions; 2) determining the parameters of the correlation function in relationship to the frequency of the spectral density; 3) setting up an equation for determining τ at in terms of the parameters of the correlation function and the spectral density frequency; 4) finding $\tau_{at} = f_k(m_0)$ for each of the correlation functions. Recommendations for practical application are given. The method was tested on a number of random processes under laboratory and industrial conditions with satisfactory results in accuracy. Two examples of use of the method are given. Author is grateful to I. M. Maslennikov who directed this work. Orig. art. has: 5 figures and 22 formulas.

44, 55
SUB CODE: 09, 12 / SUBM DATE: 06Mar64 / ORIG REF: 003 / OTH REF: 001

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S/039/61/053/002/003/003
C111/C222

AUTHOR: Klovov, Yu. L. (Moscow)

TITLE: A method for the solution of the limit boundary value problem for an ordinary differential equation of second order

PERIODICAL: Matematicheskiy sbornik, vol.53, no.2, 1961, 219-232

TEXT: The author gives methods for the solution of the problems

$$\ddot{x} = \varphi(x) + \dot{x}f(x, \dot{x}), \quad (1)$$

$$x(0) = a, \quad x(\infty) = 0 \quad (1')$$

and

$$\dot{x} = \varphi(t, x) + \dot{x}f(t, x, \dot{x}), \quad (10)$$

$$x(0) = a, \quad x(\infty) = 0, \quad (10')$$

respectively, which are called limit boundary value problems.

The generalized problem

$$\ddot{x} = f(t, x, \dot{x}) \quad (14)$$

$$x(0) = a, \quad |x(t)| \leq C < \infty, \quad 0 \leq t < \infty \quad (14')$$

is considered for $0 \leq t < \infty$.

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A method for the solution...

In § 1 the author considers (1), (1'), where $\varphi(x)$, $f(x,y)$ are defined and continuous for all x, y and satisfy the Lipschitz condition in every finite interval. Besides: $\varphi(0) = 0$; $x \varphi(x) > 0$ for $x \neq 0$; $|f(x,y)| \leq c(x)(1+|y|)$; $|x| < \infty$; $\varphi(x) \geq 0$ -- continuous. Then for every a there exists a unique solution (Ref.6: Yu.L.Klovov, Odná predel'naya krayevaya zadacha dlya uravneniya $\ddot{x} + \dot{x}f(x, \dot{x}) + \varphi(x) = 0$ [A limit boundary value problem for the equation $\ddot{x} + \dot{x}f(x, \dot{x}) + \varphi(x) = 0$], Izv.VUZ'ov, no.6 (1959), 72-80). The equation (1) is replaced by

$$\frac{dy}{dx} = \frac{\varphi(x)}{y} + f(x,y), \quad (2)$$

and it is proved that the solution of (2) can be obtained with the difference method

$$\frac{y_{k+1} - y_k}{h} = \frac{\varphi_{k+1}}{y_{k+1}} + f_k, \quad (3)$$

where

$$x_k = kh \ (k=0,1,\dots,n), \quad x_n = nh = a, \quad \varphi_k = \varphi(x_k),$$

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$$f_k = f(x_k, y_k), \quad y_0 = 0.$$

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A method for the solution...

For the proof the author considers the sequence $\{y_n(x)\}$, where $y_k(x)$, $0 \leq x \leq a$, $h > 0$ is a continuous function which in x_k assumes the value y_k and on $[x_k, x_{k+1}]$ it is linear. The author proves the uniform boundedness and equicontinuous continuity of $\{y_n(x)\}$ and then he uses the theorem of Arzelà.

In § 2 the author considers (10), (10'), where $\varphi(t, x)$ and $f(t, x, y)$ are continuous for $t \geq 0$, and in every bounded region in x, y (for a fixed t) they satisfy the Lipschitz condition. Furthermore it is assumed that

$$\varphi(t, 0) \equiv 0, \quad x\varphi(t, x) > 0 \text{ for } x \neq 0, \quad t \geq 0, \quad (A)$$

$$|f(t, x, y)| \leq c(t, x)(1 + |y|), \quad t^2 + x^2 < \infty, \quad (B)$$

where $c(t, x) \geq 0$ is continuous. The assumptions guarantee the existence of a solution of (10) (of § 3). Under the further assumption that this solution is unique, at first the more general problem

$$\ddot{x} = \varphi(t, x) + \dot{x}f(t, x, \dot{x}), \quad (11)$$

$$x(0) = a, \quad x(\infty) = h \quad (11')$$

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A method for the solution...

is considered, and besides ($T \geq 0$)

$$\ddot{y} = \varphi_T(t, y) + \dot{y} f_T(t, y, \dot{y}), \quad (12)$$

$$y(0) = a, \quad y(\infty) = 0, \quad (12')$$

where

$$\varphi_T(t, y) = \begin{cases} \varphi(t, y), & 0 \leq t \leq T \\ \varphi(T, y), & \text{for } t > T \end{cases}$$

and

$$f_T(t, y, z) = \begin{cases} f(t, y, z), & 0 \leq t \leq T \\ f(T, y, z), & \text{for } t > T. \end{cases}$$

Theorem: Let $x(t)$ be a solution of (11), (11'), and $y(t)$ be an arbitrary solution of (12), (12'). On every finite interval $[0, T]$ then it holds: $x(t) - y(t) \rightarrow 0$ and $\dot{x}(t) - \dot{y}(t) \rightarrow 0$ for $T \rightarrow \infty$. For the solution of (12), (12') it is recommended: If $T > 0$ is fixed then (12) is autonomous for $t \geq T$, and every solution tending to zero can be found if $y(T)$ is known since $\dot{y}(T) = -\psi(y(T))$, and the continuously differentiable $\psi(y)$ can be found according to the method of § 1. Then one obtains an ordinary Cauchy problem. Since $y(T)$ is not known, it is recommended to determine it by trying so that $x(0) = a$.

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A method for the solution...

In § 3 it is proved:

Theorem 1: Let $f(t, x, y)$ be continuous for $t \geq 0$, let it satisfy the Lipschitz condition for x and y in every finite region of the halfspace $t \geq 0$, and let $|f(t, x, y)| \leq o(t, x)(1+y^2)$, $t^2+x^2 < \infty$, $o(t, x) \geq 0$ be continuous. Let exist an $M > 0$ so that $f(t, x, 0) > 0$ for $x \geq M$ and $f(t, x, 0) < 0$ for $x \leq -M$. Then for every a there exists a solution of (14), (14').

Theorem 2: Given

$$\dot{y} = f(t, x, y), \quad (16)$$

where $f(t, x, y)$ is continuous in (t, x, y) , non-decreasing in x , in every bounded region it satisfies the Lipschitz condition in x, y ; $|f(t, x, y)| \leq o(t, x)(1+y^2)$, $t^2+x^2 < \infty$, $o(t, x) \geq 0$ continuous. Let $f(t+2\pi, x, y) = f(t, x, y)$, and let the equation $f(t, x, 0) = 0$ define a continuous (periodic) curve $x = \beta(t)$, $|\beta(t)| < M$; for $-M \leq x \leq M$ let $f(t, x, y)$ be strongly monotonely increasing in x . Then (16) has a unique periodic solution $x = \alpha(t)$ with the period 2π , and for every $x(0)$ there exists a unique solution $x(t)$ for which: $x(t) - \alpha(t) \rightarrow 0$ for $t \rightarrow +\infty$.

The author mentions S.M. Bernsheyn. He thanks V.V. Nemytskiy for the

Card 5/6

U.S.S.R.

L 07443-67 EMP(k)/EMP(d)/EMP(m)/EMP(w)/EMP(v) IJP(c) EM/WW
ACC NR: AP6035492 (N) SOURCE CODE: UR/0198/66/002/010/0029/0035

AUTHOR: Borisenko, V. I. (Kiev); Klokova, A. I. (Kiev) 35
B

ORG: Institute of Mechanics, AN UkrSSR (Institut mekhaniki AN UkrSSR)

TITLE: Postcritical deformation of a cylindrical shell under impact 26

SOURCE: Prikladnaya mekhanika, v. 2, no. 10, 1966, 29-35

TOPIC TAGS: cylindric shell, shell deformation, shell impact, elastic deformation, elastic impact deformation

ABSTRACT: The axisymmetrical elastic deformation of a circular cylindrical shell under longitudinal impact is investigated by using a system of nonlinear equations with the propagation of elastic stress waves taken into account, and without any assumptions concerning the mode of buckling. One end of the shell is fixed, the other end is axially impacted by a rigid solid moving at a velocity V ; the ratio m of the mass of the body to the mass of the shell is given. The analysis of the impact-deformation process in this shell is reduced to solving this nonlinear system with initial and boundary conditions by the method of finite differences, utilizing an explicit scheme whose convergence and stability was checked. The behavior of the shell was studied in

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L 07443-67

ACC NR: AP6035492

the time interval in which the longitudinal compression wave propagates along the whole length of the shell, and the first reflected wave comes back. The results from calculating the normal displacements along the shell at various instants of both waves propagating, for the ratio $n = 3.64$ and nondimensional velocities $V/a = 0.0003; 0.001; 0.002; \text{ and } 0.004$ (where a is the velocity of sound) are shown in diagrams and are examined. The qualitative aspect of the shell deformation, especially the formation of maximum local displacements during the passage of both the compression and the reflected waves as related to V is discussed and found to be in agreement with the A. Koppa phenomenological theory based on experimental results. Orig. art. has: 5 figures and 13 formulas.

SUB CODE: 20/ SUBM DATE: 29Dec63/ ORIG REF: 006/ OTH REF: 002
ATD PRESS: 5104

Card 2/2

~~E. F. KLOKOVA, E. F.~~

✓ **Investigation of Hard Formation in Cold Welding of Metals**
H.G. KLOKOVA and A. P. KLOKOVA (Leningrad P.I.E. Station)
 In *Metallurgiya*, 1965, No. 10, 1074.
 The authors investigated the surface micro-structure of the welds formed by the cold welding of two pieces of metal. The results of the investigation showed that during the welding the hard surface layer was broken up into fragments, and the weld was covered by metallic oxides of the soft metal under-lying the hard layer. In pressure welding it is necessary to remove the oxide film and the hard surface layer before welding can take place. There was found to be approx-imate correlation between the degree of destruction necessary for bonding and the hardness of the metal. This is explained by the fact that the energy is consumed in breaking down the harder and brittle oxides.

①

D. J.

USSR/Physics - PLASTIC deformation

FD - 3160

Card 1/1 Pub. 153 - 16/26

Author : Aynbinder, S. G.; Klokova, E. F.

Title : Occurrence of cohesion in metals under joint plastic deformation

Periodical : Zhur. tekhn. fiz., 25, No 13 (November), 1955, 2356-2364

Abstract : The authors remark that it is now an established fact (V. D. Kuznetsov, Fizika tverdogo tela [Physics of solids], Vol. 4, Tomsk, 1947) that cohesion (stsepleniye) is an important factor in the process of dry friction, which phenomenon is now being employed in the so-called cold welding of metals (i.e. the joining of metal objects by pressure without any heat). In the present article the authors attempt to study the problem of emergence of cohesion under plastic deformation by means of modeling of natural films by galvanic and lacquered films of various thickness and hardness. They also investigated specimens with oxide films obtained electrolytically. They propose an explanation for the phenomenon of gripping in the case of large specific loads and in the presence of lubricants, and explain the phenomenon of lubrication by light metals. They conclude in the latter case that lubricants prevent the gripping of the harder metal of the bearing. Ten references: e.g. S. G. Aynbinder and E. F. Klokova, Izv. AN Latv. SSR, No 11, 1953.

Submitted : May 26, 1955

Preparation of surfaces for cold-welding. S. Alkhodov
and K. Kichova. U.S.S.R. 103,128, Sept. 28, 1956. To
eliminate running and degreasing of surfaces to be cold-
welded, they are coated with a layer of a hard metal, e.g.,
Ni.
M. Hosh

KLOKOVA, E.F.

PHASE I BOOK EXHIBITION NOV/50/51

Proceduralnyy konferentsiya po temam i linou v mashinakh. 3d, 1950.
 Izv. i izmeneniya. Antifrictionnyy materialy (wear and tear resistance. Antifriction Materials) Moscow, 1950-51, 225, 1950, 273 p. Krvata slip inserted. 3,500 copies printed. (Series: Izv. Trudov, v. 2)
 Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Reop. Ed.: M. N. Krushchov, Professor; Eds. of Publishing House: M. Ya. Kabanov, and E. L. Orpik; Tech. Ed.: Z. V. Poljubova.

NOTE: This collection of articles is intended for practicing engineers and research scientists.

CONTENTS: The collection, published by the Institut mashinovedeniya, AS SSSR (Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the III Vsesoyuznyy Nauchnyy po temam i linou v mashinakh (Third All-Union Conference on Friction and Wear in Machines) which was held April 9-15, 1950. Problems discussed were in 5 main areas:
 1) Hydrodynamic Theory of Lubrication and Friction Bearings (Chairman: Ye. M. Gut'yar, Doctor of Technical Sciences, and A. L. D'yachkov, Doctor of Technical Sciences); 2) Lubrication and Lubricant Materials (Chairman: A. V. Vinogradov, Doctor of Chemical Sciences); 3) Dry and Boundary Friction (Chairman: R. V. Borogin, Corresponding Member of the Academy of Sciences USSR, and I. V. Kragol'vits, Doctor of Technical Sciences); 4) Wear and Wear Resistance (Chairman: M. N. Krushchov, Doctor of Technical Sciences); and 5) Friction and Antifriction Materials (Chairman: L. V. Kragol'vits, Doctor of Technical Sciences, and M. N. Krushchov, Doctor of Technical Sciences). Chairman of the general assembly (on the first and last day of the conference) was Academician A. A. Blagovestov, L. Th. Prukhanov, Academician of the Academy of Sciences, and Academician of the Academy of Sciences, and Academician of the Academy of Sciences. This volume contains 3 volumes, of which the present volume is the first. This volume contains articles concerning the wear and tear resistance of antifriction materials. Among the topics covered are: modern developments in the theory and experimental methods of wear resistance of materials, specific data on the wear resistance of various combinations of materials, methods for increasing the wear resistance of antifriction materials, the effects of friction on the wear resistance of materials, the wear resistance of materials in the presence of lubrication, types of lubricating materials on machine bearings, wear of a wide variety of materials and components under many different conditions, modern developments in antifriction materials, and the effects of finish machining on wear resistance. Many specializations are mentioned in the text. References accompany most of the articles.

| | |
|--|-----|
| 1. The Investigation of the Structure of Steel Deformed by Isothermal Volumetric Compression at Normal and Elevated Temperatures | 126 |
| 2. The Investigation of the Structure of Steel Deformed by Isothermal Volumetric Compression at Normal and Elevated Temperatures | 136 |
| 3. The Investigation of the Structure of Steel Deformed by Isothermal Volumetric Compression at Normal and Elevated Temperatures | 144 |
| 4. The Investigation of the Structure of Steel Deformed by Isothermal Volumetric Compression at Normal and Elevated Temperatures | 150 |
| 5. The Investigation of the Structure of Steel Deformed by Isothermal Volumetric Compression at Normal and Elevated Temperatures | 163 |

S/686/61/000/000/003/012
D207/D303

AUTHORS: Aynbinder, S. B. and Klokoval, E. P.

TITLE: On the theory of adhesion of metals during simultaneous plastic deformation

SOURCE: Soveshchaniye po voprosam teorii sukhogo treniya i obrazovaniya chastits iznosa pri sukhom trenii. Riga, 1959, 41-53

TEXT: The authors develop a qualitative theory of adhesion of metals and simultaneous plastic deformation under the action of purely normal loads; the case of combined normal and tangential loads will be dealt with in a separate publication. Adhesion is taken to mean formation of metal bonds between two metal surfaces separated by distances smaller than those between atoms in a lattice. The authors allow for the effect of surface microroughness and of surface films (cold-worked layers, absorbed films, oxides, etc.). The following conclusions are arrived at: 1) Formation of metal "bridges" occurs simply because two metal surfaces are very close to one another

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On the theory of ...

S/686/61/000/000/003/012
D207/D303

(distances less than atomic) and it is not necessary to assume supplementary processes such as diffusion, recrystallization, formation of amorphous structure, etc.); 2) the "bridges" may be broken by internal stresses on removal of external loads; 3) if the films present on the surface are soft, the "bridges" are not easily formed except when the films are very thin or when very high loads are applied; 4) if the surface films are brittle, the "bridges" are formed easily. The main part of the paper is concerned with refuting arguments of those, who reject the theory outlined by the present authors. There are 6 figures and 16 references: 12 Soviet-bloc and 4 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: I. M. Parks, British Welding Journal, no. 8, 1953; W. B. Hardy and I. K. Hardy, Note on static friction and on the lubricating properties of certain chemical substances, Cambridge; F. Bowden and D. Tabor, The friction and lubrication of solids, Oxford, 1954; L. R. Vaidyanath, M. G. Nicholas and D. R. Milner, British Welding Journal, 1, 1959.

Card 2/3

KLOKOVA, E. F.


Cand Phys-Math Sci - (diss) "Effect of the condition of surface of metals on the cohesion process in combined plastic deformation." Riga, 1960. 16 pp with illustrations; (Academy of Sciences Latvian SSR, Inst of Automatics and Mechanics); 170 copies; price not given; (KL, 7-61 sup, 219)

9/123/61/000/014/003/045
A004/A101

AUTHOR: Klokov, E. P.

TITLE: Metal adhesion under normal conditions and at normal loads

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 14, 1961, 13, abstract 14A93 ("Tr. 3-y Vses. konferentsii po treniyu i iznosu v mashinakh, v. 1", Moscow, AN SSSR, 1960, 144-151)

TEXT: The author analyzes the mechanism of metal adhesion at low and small normal loads for metals covered with adsorbed films and metals cleaned with a brush, using Al, Cu, Fe, Sn, and Pb specimens. At low loads, when the surface is covered with thin films, adhesion will not occur, since the film prevents it. At high loads the tendency of metal to adhesion is characterized by the relation between the hardness of the film and that of the metal. Adhesion will arise in all contact points between clean surfaces. 

V. Kolesnik

[Abstracter's note: Complete translation]

Card 1/1

KLOKOVA, E. (Riga); LOGINOVA, A. (Riga)

Properties of the surface layers being formed upon the treatment of metals with brush, and the effect of these properties on the process of cohesion. Vestis Latv ak no.9:33-40 '60.

(KFI 10:9)

1. Akademiya nauk Latvyskoy SSR, Institut mashinovedeniya.

(Cohesion) (Metals)

KLOKOVA, E. (Riga)

Cohesion of different metals in plastic deformation under the effect
of normal loads. Vestis Latv ak no.11:49-58 '60.
(KAI 10:9)

1. Akademiya nauk Latvyskoy SSR, Institut mashinovedeniya.

(Cohesion) (Metals) (Deformation (Mechanics))

AYNBINDER, S.B.; KLOKOVA, E.F.

Determining the adhesion forces between solids. Dokl. AN SSSR 146
no.5:1058-1060 • '62. (MIRA 15:10)

1. Predstavleno akademikom P.A.Rebinderom.
(Adhesion) (Friction)

KLOKOVA, M. T., kand.tekhn.nauk

Machines for the construction of passable irrigation networks.
Trudy VNIIOIM 32:163-174 '59. (MIRA 13:8)
(Earthmoving machinery)
(Irrigation canals and flumes)

L 44567-65 KPR/EWT(m)/T/EWP(b)/EWA(d)/EWP(u)/EWP(t) EM/JD
 ACCESSION NR AM5013555 BOOK EXPLOITATION

OR/22
 2/41

Klokov, N. P.

Strain gauges for measurements at elevated temperatures (Tensodatchiki dlya izmer-
 eniy pri povyshennykh temperaturakh) Moscow, Izd-vo "Mashinostroyeniye", 65.
 0118 p. illus., bibli.: 4,500 copies printed.

TOPIC TAGS: measuring instrument, high temperature instrument, resistance bridge

PURPOSE AND COVERAGE: The book describes characteristics of wire strain gages for
 measurements of static deformations at high temperatures. Basic characteristics of
 some strain gages are presented. Compensation methods for resistance gains due to
 temperature, are described and errors in measurements of static deformations under
 various conditions are evaluated. The book is intended for engineers, technicians,
 and research workers engaged in the development and use of strain gages at high
 temperatures.

TABLE OF CONTENTS (abridged):

Foreword -- 3

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L 44567-65

ACCESSION NR AM5013555

- Ch. I. Basic characteristics of strain gages and methods of their determination — 6
- Ch. II. Strain gages for measurements of static deformation at high temperatures — 37
- Ch. III. Methods for the decrease, compensation, and estimation of resistance gains in strain gages due to temperature — 72
- Ch. IV. Errors in strain gage measurements of deformation — 100
- Bibliography — 117

SUBMITTED: 18Jan65

HC REF SOV: 034

SUB CODE: AS, IN

OTHER: 011

Card 2/2

L 07260-67 EWT(d)/EWT(m)/EWP(v)/EWP(k)/EWP(h)/EWP(l) JR/QD
 ACC NR: AT6025312 SOURCE CODE: UR/0000/66/000/001/0106/0115

AUTHOR: Kazachkov, V. I.; Klokova, T. F. 4/

ORG: none 14 B+/

TITLE: Logarithmic amplifier in the control system of a nuclear reactor 14

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Upravleniye yadernymi energeti-
 cheskimi ustanovkami (Control of nuclear power plants), no. 1. Moscow, Atomizdat,
 1966, 106-115

TOPIC TAGS: nuclear reactor control, amplifier stage, volt ampere characteristic

ABSTRACT: The authors consider certain characteristics of a triode logarithmic amplifier which is used extensively in devices for control, protection, and automatic starting of reactors (Fig. 1). Methods of determining such characteristics as the input resistance and the time constant of the input circuit are described, and the volt-ampere characteristic is presented for different resistances connected in parallel with its input. An analysis of the circuit operation leads to the following conclusions: 1. The input resistance of the logarithmic amplifier changes appreciably with the measured current. 2. To eliminate errors due to the deformation of the logarithmic-amplifier characteristic at small input currents, it is necessary to apply an initial bias current at the input circuit. 3. The statistical error of logarithmic amplifiers is independent of the measured current. 4. The dynamic error of the logarithmic amplifier does depend on the measured current, the reactor period, or the

Card 1/2

L 07260-67

ACC NR: AT6025312

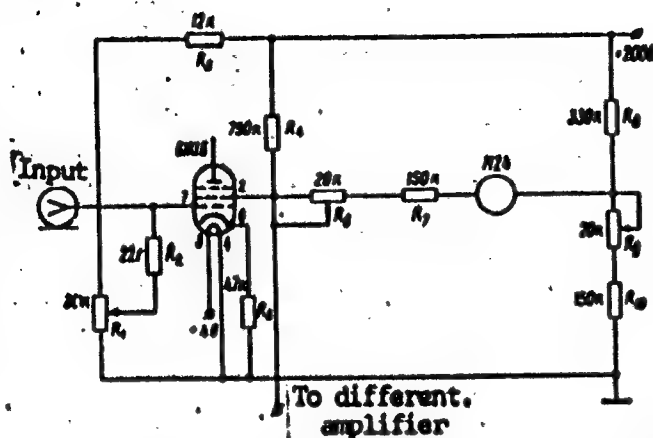


Fig. 1. Schematic diagram of logarithmic amplifier

input capacitance employed. Orig. art. has: 8 figures and 8 formulas.

SUB CODE: 18, 09/ SUBM DATE: 27Dec65/ ORIG REF: 003/ OTH REF: 001

Card 2/2 *fw*

KLOKOVA, T.P., kand. arkhitektury

Hidden opportunities on swine farms. Zhivotnovodstvo 21
no.1:79-82 Ja '59. (MIRA 12:2)

1. Starshiy arkhitektor Instituta gradostroitel'stva i rayonnoy planirovki Akademii stroitel'stva i arkhitektury SSSR.
(Swine houses and equipment)

SALIMOV, M.A.; BABAYEVA, N.L.; KLOKOVA, Ye.I.; MIRMOVSUMOVA, A.M.

Apparatus for visual measurement of light scattering in
solutions of polymers. Azerb. khim. shur. no.2:75-79 '63.
(MIRA 16:8)

KRATS, L., inzhener-konstruktor; KLOKOVSKIY, M.

Consolidate business connections. NTO 2 no.7:57
J1 '60. (MIRA 13:7)

1. Uchenyy sekretar' soveta Nauchno-tekhnicheskogo obshchestva
vodnogo transporta na Leningradskom zavode resinovykh
tekhnicheskikh izdeliy (for Klovovskiy).
(Leningrad—Shipyards)

KLOKOVSKIY, N.; KRATS, L.

Pneumatic-tube transportation in foundries. NTD 3 no.8:59 Ag
'61. (MIRA 14:9)

1. Uchenyy sekretar' soveta Nauchno-tehnicheskogo obshchestva
Kanonerskogo sudoremontnogo zavoda (for Klovovskiy). 2. Chlen
Nauchno-tehnicheskogo obshchestva Kanonerskogo sudoremontnogo
zavoda (for Krats).

(Pneumatic-tube transportation)

KAFKA, V.; SVABENSKA, J.; KLOMINEK, J.

Diaphragmatic hernia in the newborn. Cesk. pediat. 11 no.12:
891-894 Dec 56.

1. Klinika Pediatricke Chirurgie, predn. doc. Dr. Vaclav Kafka.
- I. detska klinika KU v Praze, predn. prof. Dr. Josef Svejcar.
- III. detska klinika KU v Praze, predn. doc. Dr. Otto Vychytil.
(HERNIA, DIAPHRAGMATIC, in inf. & child
in newborn, surg. (Cs))
(INFANT, NEWBORN, dis.
diaphragmatic hernia, surg. (Cs))

HOLANOVA, L.; KLIMINEK, J.; PAFLOVA, H.

Peptic ulcer in Meckel's diverticulum in a 14-year-old boy treated with corticoids. Cesk. pediat. 19 no.6:526-527 Je'64

1. III. detska klinika fakulty vseobecneho lekarstvi KU [Karlovy university] v Praze (prednosta: prof. dr. O. Vychytil) a Chirurgicka klinika fakulty detskeho lekarstvi KU [Karlovy university] v Praze (prednosta: prof. dr. V.Kafka).

SOURCE, Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: Faculty of Natural Sciences, KU/Karlova universita; Charles University/ (Přirodovedecká fakulta KU), Prague.

Source: Prague, Vestník Ústředního Ústavu Geologického, Vol XXXVI, No 5, June 1961, pp 355-356.

Data: "The Finding of the Alkaline-Syenite Rocks With Canerinite in the Sixt Cista Massif."

670 96163

CHRT, Jiri; KLOMINSKY, Josef

Mineralization of Telnice granodiorite rocks in Erzgebirge.
Vest ust geol 39 no.2: 117-126 Mr'64

1. Ustredni ustav geologicky, Praha; Geologicky pruzkum, Praha.

KLAMINSKY, Josef

Piscolitic Magnetite from the gallery driven under Pilschov
Mountain in Erzgebirge. One min. gal. 9 no. 16.

1. Central Geological Institute, Prague.

CZECHOSLOVAKIA

KLOMINSKY, J.

Central Geological Institute (Ustredni ustav geologicky),
Prague

Prague, Casopis pro mineralogii a geologii, No 3, 1964, pp 329-
331

"Pisolitic Magnetite from the Gallery near Klinovec in the
Krusne Hory Mountains."

SATTRAN, Vladimir; FISERA, Milan; KLIMINSKY, Josef

The genetic relation of tin and gold endogenous deposits to the Variscan magmatism of the Bohemian Massif. Vest Ust geol 39 no. 6:435-439 II '64.

1. Central Geological Institute, Prague and the Faculty of Natural Sciences of Charles University, Prague. Submitted November 29, 1963.

KLomINSKY, J.

CZECHOSLOVAKIA

KLOMINSKY, J; SATTRAN, V.

Central Geological Institute (Ustredni ustav
geologicky), Prague (for both)

Prague, Vestnik ustredniho ustavu geologickeho, No 5,
1963, pp 341-345

"Origin of Skarns in the Central Part of the Krusne
Hory Mountains (Erzgebirge)."

GAIL-PECZALSKA, Kasimiera; KAPUSCINSKA-CZERSKA, Wanda; KARLOWICZ, Karola;
KLON, Maria

Adrenogenital syndrome with electrolyte disorders in siblings. *Pediat.*
pol. 37 no.10:1059-1066 0 '62.

1. Z I Kliniki Chorob Dzieci AM w Warszawie. Kierownik: prof. dr med.
R. Baranski i s Miejskiego Szpitala Dziecięcego w Warszawie — Saska
Kępa. Dyrektor: dr med. S. Bielobradek.
(ADRENOGENITAL SYNDROME) (ELECTROLYTES)

BARTKOWIAK, A.; HIRNLE, Z.; KLONECKI, W.; PRUS, S.

Statistical studies of the influence of brucella abortus infection on Crocker's transmissible sarcoma in mice. Acta medica polona (Warszawa) 1 no.3/4:243-248 '60.

1. Institute of Mathematics, Department of Applied Mathematics in Natural Science and Economy of the Polish Academy of Sciences, Wroclaw. Director: Professor H. Steinhaus and Department of Pathological Anatomy, Medical Academy, Wroclaw, and Department of Experimental Oncology of the L. Hirsfeld Institute of Immunology and Experimental Therapy, Wroclaw Director: Professor Z. Albert M.D.

(BRUCELLOSIS exper) (SARCOMA exper) (NEOPLASMS exper)

BARTKOWIAKOWA, Anna; HIEHLE, Zbigniew; KLONICKI, Witold; PRUS, Stanislaw

Statistical studies on the effect of *Brucella abortus* on
transplantable Crocker's sarcoma in mice. Postepy hig. med.
dosw 14 no.1:85-90 '60.

1. Z Instytutu Matematyki PAN we Wrocławiu, Dział Zastosowań
Przyrodniczych i Gospodarskich, Kierownik: prof. dr H. Steinhaus.
(SARCOMA exper.)
(BRUCELLA ABORTUS)

KLOHOWICZ, Maria

Aneurysmal dilatation of the left auricle. Polski tygod. lek.
10 no.22:716-719 30 May '55.

1. Z I Zakladu Chorob Wewnetrznych Instytut Doskonalenia i
Specjalizacji Kadr Lekarskich w Warszawie; kierownik: prof.
dr. med. A. Landau i prof. dr Med. B. Wisniewski) Warszawa,
ul. Karlowicza 1/7 m. 114.

(HEART, aneurysm

dilatation of left auricle, with rheum.,diag.)

(RHEUMATIC HEART DISEASE, complications

aneurysmal dilatation of left auricle, diag.)

KLONOWICZ, Maria (Warszawa, ul. Karłowicza 1--7 m. 114)

Relation of venous pressure to blood volume and serum sodium content in circulatory insufficiency with edema. Polski tygod. lek. 13 no.19 717-723 12 May 1958

1. (Z I Zakładu Chorob Wewnętrznych Instytutu Doskonalenia i Specjalizacji Kadr Lekarskich w Warszawie; Kierownictwo; prof. dr A. Landau i prof. Dr B. Wisniewski).

(CONGESTIVE HEART-FAILURE, physiology, blood volume, venous pressure & blood sodium, inter-relationship (Pol))

(BLOOD VOLUME, in var. dis.

congestive heart failure, relation to venous pressure and blood sodium (Pol))

(SODIUM, in blood,

in congestive heart failure, relation to blood volume & venous pressure (Pol))

(BLOOD PRESSURE, in var. dis.

congestive heart failure, relation to blood volume and blood sodium (Pol))

KLONOWICZ, Maria

Dependence between venous pressure, amount of circulating blood and amount of blood sodium in patients with circulatory failure with edema. Polskie arch. med. wewn. 28 no.4:560 1958.

1. Z I Zakladu Chorob Wewnetrznych Inst. Doskonalenia i Specj. Kadr., Lekarskich w Warszawie Kierownik: prof. dr. med. B. Wisniewski:

(CONGESTIVE HEART FAILURE, physiol.

relation between venous pressure, circulating blood volume & blood sodium level in patients with edema (Pol))

(BLOOD PRESSURES, in various dis.

congestive heart failure with edema, relation of venous pressure to circulating blood volume & blood sodium (Pol))

(BLOOD VOLUME, in various dis.

congestive heart failure with edema, relation to venous pressure & blood sodium (Pol))

(SODIUM, in blood

in congestive heart failure with edema, relation to circulating blood volume & venous pressure (Pol))

KŁONOWICZ, Maria; DŁOCHY, Wojciech; RADWAN Leszek

A case of pancytopenia associated with pregnancy toxemia. Cin.
polska 31 no.3:333-338 My-Je '60.

1. Z I Zakładu Chorob Wewnętrznych Studium Doskonalenia Lekarzy
A.M. Kierownik: prof. dr med. W.Hartwig
(ANEMIA APLASTIC in pregn)
(PREGNANCY TOXEMIAS compl)

KLECZKOWSKI, S.

SURNAME, Given Names

Country: Poland

Academic Degrees: Candidate in medical sciences Military rank: Lt. Col. 7

Affiliation: Gen. K. Kaczkowski Military Institute of Hygiene and Epidemiology (Wojskowy Instytut Higieny i Epidemiologii im. gen. K. Kaczkowskiego), Warsaw /presumed/.

Source: Warsaw, Lekarz Wojskowy, Vol 36, No 5, 1961, pp. 410-417.

Data: "On Processing and Interpreting Results of Determinations of Simple Reaction Time of Soldiers."

are 901143

51

L 02204-67 EWP(m) WN
ACC NR: AP6032601

SOURCE CODE: PO/0032/66/013/003/0357/0363

AUTHOR: Klonowska, Maria E. (Warsaw); Luczywek, Eugeniusz (Warsaw);
Prosnak, Wlodzimierz J. (Warsaw)

78
B

ORC: none

TITLE: Mach number and specific heat ratio effects in axisymmetric flow on the distance of the shock wave

SOURCE: Archiwum budowy maszyn, v. 13, no. 3, 1966, 367-363

TOPIC TAGS: detached shock wave, axisymmetric flow, stagnation point, shock wave physics, axisymmetric supersonic flow, shock stand off distance, Mach number effect, specific heat ratio effect, integral relation computation method, computer programming/GIER digital computer

ABSTRACT: The distance between a detached shock wave and the stagnation point on the flat nose of a circular cylinder in axisymmetric supersonic flow was computed by the integral relations method, in order to investigate the influence of the Mach number and the specific heat ratio on shock standoff distance. The computa-

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ACC NR. AP6032601

tions were performed in 20 cases with different Mach numbers and specific heat ratios. The programming for the GIER digital computer used was developed by co-author Luczywek. Comparison of computed values and experimental data yielded no essential discrepancies. Orig. art. has: 4 figures, 1 table, and 4 formulas. [Based on authors' abstract]

SUB CODE: 09, 20/ SUBM DATE: 00Nov65/ ORIG REF: 002/ SOV REF: 001/
OTH REF: 001/

Card 2/2 *LC*

BARTOSZEWSKI, Adam; STEPKOWSKA, Irena; KLONOWSKI, Henryk

Trichomycin in the treatment of Trichomonas infections in humans.
Polski tygod. lek. 14 no.51:2236-2239 21 Dec. '59.

1. Z I Kliniki Położniczej i Chorob Kobietych A.M. w Lublinie;
Kierownik: prof.dr. St. Liebhart.
(ANTIBIOTICS ther.)
(TRICHOMONAS INFECTIONS ther.)

TROJNACKI, Zdzisław; KLONOWSKI, Henryk; BOKINIEC, Michał

Application of hydrocortisone into the uterine cavity as a therapeutic method in post-inflammatory obstruction of the fallopian tubes. Ginek. Pol. 33 no.1:137-140 '62.

1. Z I Kliniki Położnictwa i Chorob Kobietych AM w Lublinie Kierownik: prof. dr S. Liebhart.

(FALLOPIAN TUBES dis) (HYDROCORTISONE ther)

POLAND

TROJNACKI, Zdzislaw and KLONOWSKI, Henryk, First Clinic of Obstetrics and Gynecology (I Klinika Poloznictwa i Chorob Kobietych), AM [Akademia Medyczna, Medical Academy] in Lublin (Director: Prof. Dr. med. S. LIEBHART)

"Results of Local Application of Hydrocortisone in Inflammations of the Uterine Appendages."

Warsaw-Krakow, Przegląd Lekarski, Vol 19, Ser II, No 2, 28 Feb 63, pp 153-155.

Abstract: [Authors' English summary modified] Authors obtained good results treating patients with inflammation of the endometrium and uterine appendages by local administration of hydrocortisone solution together with antibiotics of wide-range action. Solution was introduced into the region of the appendages by puncture of the lateral fornix of the vagina, starting with 150 ml, and gradually reducing the dose. ACTH, Vitamin C, PP, and Rutinoscorbin were given together with the cortisone every fifth day. There are 42 references, of which 18 are Polish, 15 distinctly Western, and 9 in the German language.

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Treatment of subacute and chronic adnexitis with Enkorton
(prednisone). Ginek. pol. 34 no.4:407-502 '63.

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Kierownik: prof. dr med. S. Liebhart.
(PREDNISONE) (ADNEXITIS)

SEMCZUK, Boleslaw; MISIOWICZ, Antoni; KLONOWSKI, Stanislaw

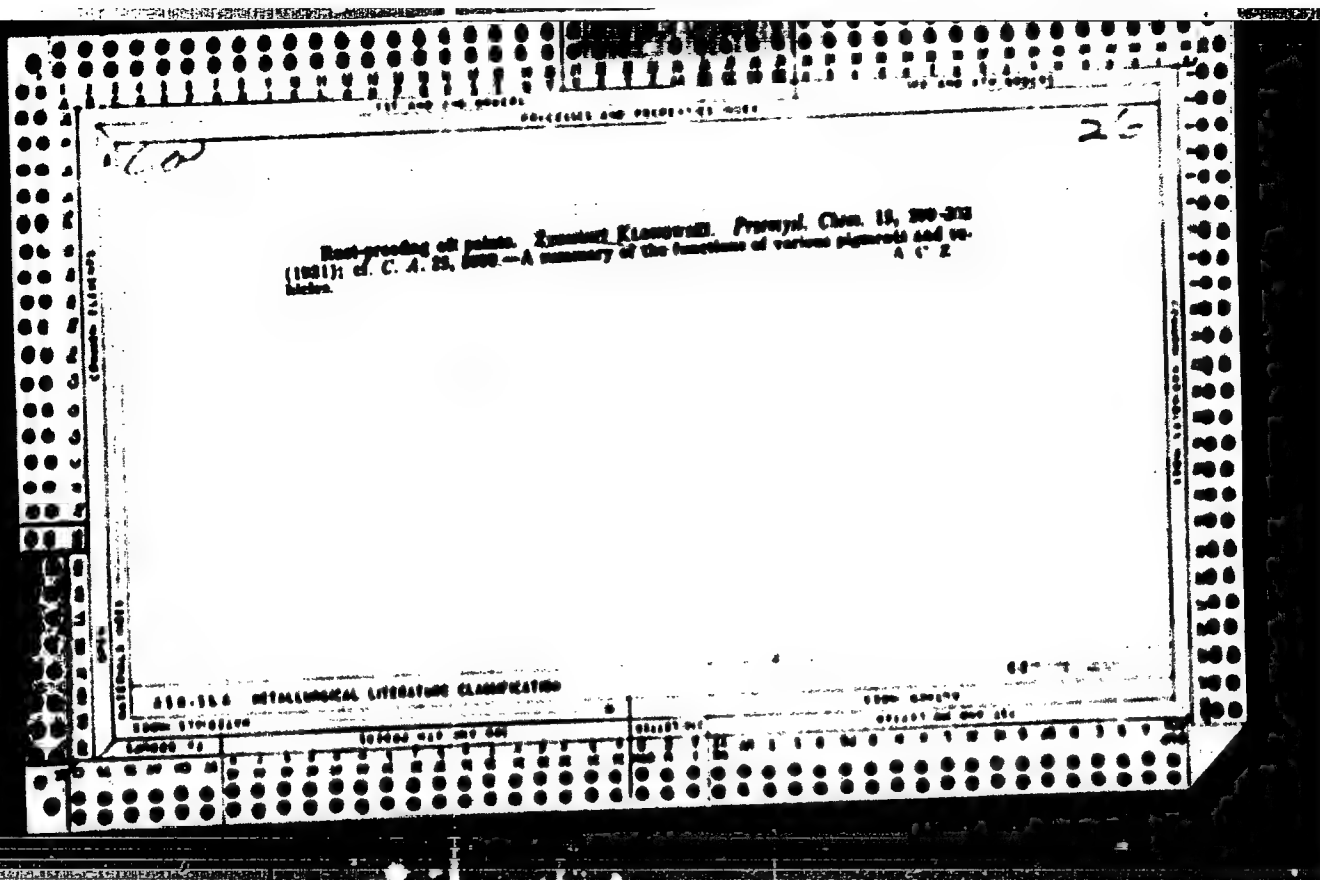
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Wojskowy Szpital Rejonowy w Lublinie (Komendant: pułkownik
Antoni Olasewski, lek.).

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Laryngeal carcinoma in the light of 10year-old clinical material.
Ann. Univ. Lublin sect. D 19:455-463 ' 64.

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Lublinie (Kierownik: prof. dr. med. Benedykt Dylewski).



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"What One Should Know About Paints and Lacquers", P. 124. (CITY, Vol. 4, No. 5, May 1953, Katowice, Poland)

SO: Monthly List of East European Accessions, (FEAL), IC, Vol. 4, No. 1, Jan. 1955, Incl.

KLONOWSKI, Z.: & KUCPF, M.:

POLAND

"Red Lead Paints and a Quick Method of Their Determination," Przemysl Chemiczny, No. 3, 1956.

Poland/Chemical Technology. Chemical Products and Their Application -- Lacquers.
Paints. Drying oils. Siccatives, I-22

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6217

Author: Klonowski, Z., Knopf, M.

Institution: None

Title: Paints Containing Red Lead and a Rapid Method for Their Evaluation

Original

Publication: Przem. chem., 1956, 12, No 1, 43-47

Abstract: Description of the properties of red lead (I) to which is attributed the inhibiting effect of coatings containing I, on progress of electrochemical corrosion of iron. New formulas of paints containing I have been developed. Content of I in the paints has been reduced from 85% to 51 and 34%, depending on the intended use of the paint. Procedures utilized heretofore for testing corrosion inhibiting paints, are characterized. The underlying principle of the proposed method of testing consists in carrying out determinations of the potential of a steel electrode, coated with the paint, as a function of time.

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Poland/Chemical Technology. Chemical Products and Their Application -- Lacquers.
APPROVED FOR RELEASE: 06/19/2000 and CIA-RDP86-00513R000723210012-3
Paints. Drying oils. Siccatives, I-22

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6217

Abstract: There are described the apparatus, measuring procedure, preparation of the surfaces and painting of the steel electrodes. The electrode is in the shape of a rod. Evaluation of the results of tests is done on the basis of the curve showing change in potential values with time; very good anti-corrosion properties of the paints being characterized by a very rapid initial increase of the potential, for instance from -100 to 0 mv, after which the curve becomes horizontal. Good properties of the paints are characterized by a gradual increase of the potential, for instance from -200 to -100 mv, followed by a gradual and slight decrease thereof with time. Satisfactory properties are indicated by a rapid drop of potential which becomes stabilized, thereafter, at its lower value (for instance from -100 to -350 mv). Poor qualities are characterized by a low value of the potential, for example of -500 to -600 mv. An anomalous course is observed on use of passivating pigments soluble in water. Examination of changes in external appearance of the coatings helps in the interpretation of the results of potentiometric determinations.

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205-207 J1-Ag '61.

1. Instytut Farb i Lakierów.

KLOOS, G., dipl. khim.; KHILLEBRAND, I. [Hillebrand, I.], inzh. khim.

Silicones and their application in electric industries.
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KLOPCEK, Anton, inz.

Most economical diameter of the pressure pipelines and pipes of hydraulic power plants. Vodni host 15 no.4:140-154 '65.

1. Chair of Hydraulic Engineering of the Faculty of Building of the Slovak Higher School of Technology, Bratislava.

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KLOPENKO, P. (g. Krasnodon).

Aeronautic enthusiasts of Krasnodon. Kryl.rod. 2 no.6:3 Je '57.
(MIRA 10:8)
(Krasnodon--Gliding and soaring)

ERDELYSZKY, Zsigmond; KLOPFER, Ervin; KOSTKA, Pal; PASZTOR, Endre

An electrostatic accelerator of the Budapest University of
Technical Sciences serving educational purposes. Koz fiz kosl
MTA 10 no.2:113-122 '62.

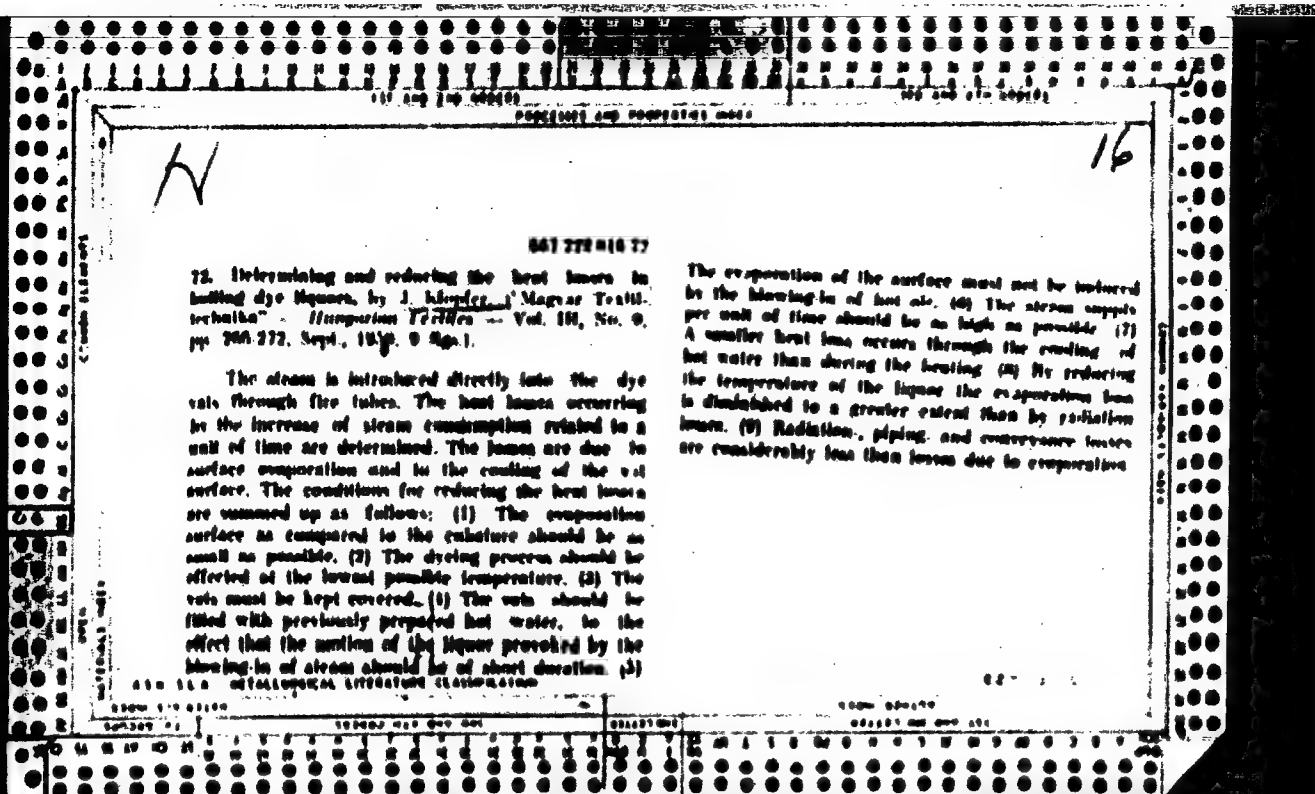
PASZTOR, Endre; KLOPPER, Ervin

Portable neutron generator for activation analysis. Koz fiz kozl
MTA 12 no.2:143-149 '64.

WINKLER, P.; KLOPPER, F.

Treatment of acute otitis in infant and child with penicillin spray.
Orv. hetil. 92 no.11:351-352 18 Mar 1951. (OLML 24:2)

1. Doctors. 2. Third Pediatric Clinic (Head Physician -- Dr. Pal Winkler) and Third Ear, Nose, and Throat Clinic (Head Physician -- Dr. Gyorgy Nagy) of Peterfy Sandor-utcai Metropolitan Hospital (Director and Head Physician -- Dr. Pal Zellner).



KLOPPER, J.

"Computation of Investment Expenditure for Different Systems of Power Plants in View of Calculations of Comparative Economy." p. 21, (MAGYAR ENERGIAGAZDAJAG, Vol. 7, no. 1, Jan. 1954, Budapest, Hungary)

30: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954/Unclassified

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"Computation of Investment Expenditure for Different Systems of Power Plants in View of Calculations of Comparative Economy." p. 63, (MAGYAR ENERGIAGAZDASAG, Vol. 7, no. 2, Feb. 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions, IC, Vol. 3, No. 5, May 1954/Unclassified

KLOPFER, Z.

POLAND / General and Specialized Zoology - Insects.

P

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 20919

Author : Klopfer, Z.

Inst : ~~Not given~~

Title : Evaluation of the Infectivity of Medicinal
Plants by Mites with the Aid of the Tulgreen
Apparatus

Orig Pub : Acta polon. pharmac., 1957, 15, No 5,
353-358

Abstract : The investigation of the medicinal-plant
raw material in warehouses showed a strong
infection with mites of the family Tyro-
glyphidae (five species). The infectiousness
was particularly great at a low humidity
of the plants (10-12%); losses suffered by

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POLAND / General and Specialized Zoology - Insects.

P

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 20919

the pharmaceutical industry reached about
30%.

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А.А.ОЗЕРОВ, Ю.А.ОЗЕРОВ, К.И.ОЗЕРОВ
ОЗЕРОВ, СУПЕР АНГЕЛОВИЧ

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Ugletekhizdat, 1956.
99 P. Illus., Diagr., Graphs, Tables.

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(MIRA 11:6)

(Polarography)
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